

DEPARTMENT OF THE ARMY
Missouri River Division, Corps of Engineers
P.O. Box 103, Downtown Station
Omaha, Nebraska 68101-0103

CEMRD-SO

Regulation
No. 385-1-1

31 July 1991

Safety
SAFETY AND OCCUPATIONAL HEALTH PROGRAM

1. Purpose. This regulation establishes the Missouri River Division Safety and Occupational Health Program.

2. Applicability. This regulation applies to the Missouri River Division Office and the districts of the Missouri River Division.

3. References. See Appendix A.

4. Objectives. The broad objectives of this regulation are:

a. To integrate safety and occupational health into all engineering design, construction, operating, and administrative processes.

b. To maintain acceptable safety and occupational health standards on a job from start to completion.

c. To produce a finished facility which provides an inherently safe and healthful environment.

d. To operate and maintain Corps of Engineers installations in a safe and healthful manner.

e. To minimize fire loss in Corps of Engineers facilities.

5. General Application.

a. The details of the Missouri River Division Safety and Occupational Health Program are stated in the appendices of this regulation.

b. District Commanders are authorized to supplement this regulation.

c. All reportable accidents, as outlined in AR 385-40 and USACE Supplement 1 thereto, will be reviewed by the Division Safety and Occupational Health Office.

This regulation supersedes MRD-R 385-1-1, Standing Safety Operating Policy and Procedures, dated 30 November 1984. Also, this regulation consolidates into MRD-R 385-1-1 and supersedes, the contents of MRD-R 385-1-3, Safety Management Evaluation, dated 15 May 1983; MRD-R 385-1-4, Occupational Health Program, dated 1 July 1986; MRD-R 385-1-6, Qualifications and Skills of Motor Vehicle and Equipment Operators, dated 3 January 1984; MRD-R 385-1-7, Safety and Occupational Health Award Program, dated 1 November 1985; MRD-R 385-1-8, Protective Clothing and Equipment, dated 1 September 1987; and MRD-R 385-1-9, Construction Contractor Safety and Occupational Health Award Program, dated 30 November 1990.

MRD-R 385-1-1
31 Jul 91

d. An adequate fire prevention and protection program will be maintained at each installation and project and on each item of floating plant.

e. Safety and occupational health training will be accomplished as its need is identified. Safety and occupational health indoctrination for all employees will be given by the supervisor at the start of a specific job. The employee is responsible for cooperating in the safety and occupational health program, for reporting to his/her supervisor any unsafe condition or practice observed, and for compliance with established job safety and occupational health standards.

FOR THE COMMANDER:

BRUCE K. HOWARD
Lieutenant Colonel, EN
Deputy Commander

Table of Contents TC-1

APPENDICES:

APP A - References
APP B - Responsibilities
APP C - Occupational Health Reqmts
APP D - Prot Cloth & Equip
APP E - S&OH Mgmt Eval
APP F - Div Cdr's S&OH Award Prgm
APP G - S&OH Award Prgm Const Contr
APP H - Q&S of MV&E Operators

DISTRIBUTION:

MRD - B
CEMRD-SO - 5 cys
CEMRK-SO - 50 cys
CEMRO-SO - 50 cys

Safety
SAFETY AND OCCUPATIONAL HEALTH PROGRAM

TABLE OF CONTENTS

<u>Appendix/Annex Title</u>	<u>Page</u>
APPENDIX A References	A-1
APPENDIX B Responsibilities	B-1
APPENDIX C Occupational Health Requirements	C-1
ANNEX A Definitions	C-A-1
ANNEX B Medical Surveillance Program	C-B-1
ANNEX C Standing Operating Procedures (SOPs) for Medical Surveillance Examinations	C-C-1
ANNEX D Hearing Conservation Program	C-D-1
ANNEX E Pesticide Protection Program	C-E-1
ANNEX F Respiratory Protection Program	C-F-1
ANNEX G Occupational Vision Program	C-G-1
APPENDIX D Protective Clothing and Equipment(PCE)	D-1
ANNEX A Examples of PCE	D-A-1
ANNEX B Memorandum Requesting Safety and Occupational Health Office Review of Unusual PCE	D-B-1
APPENDIX E Safety and Occupational Health Management Evaluations	E-1
ANNEX A Criteria for Safety and Occupational Health Program Management Evaluation of District	E-A-1
ANNEX B Safety and Occupational Health Management Evaluation Area/Resident Office	E-B-1
ANNEX C Safety and Occupational Health Management Evaluation Construction Project	E-C-1
ANNEX D Safety and Occupational Health Management Evaluation Operating Project	E-D-1
APPENDIX F Division Commander's Safety and Occupational Health Award Program	F-1
APPENDIX G Safety and Occupational Health Award Program for Construction Contractors	G-1
APPENDIX H Qualifications and Skills of Motor Vehicle and Equipment Operators	H-1

APPENDIX A
REFERENCES

1. 5 CFR 339, Office of Personnel Management, Medical Qualification Determinations.
2. 10 CFR 0 through 171, U.S. Nuclear Regulatory Commission Regulations.
3. 29 CFR 1910, Department of Labor, Occupational Safety and Health Administration, Occupational Safety and Health Standards.
4. 29 CFR 1926, Department of Labor, Occupational Safety and Health Administration, Safety and Health Regulations for Construction.
5. 29 CFR 1960, Department of Labor, Occupational Safety and Health Administration, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters.
6. 49 CFR 171 through 199, Department of Transportation, Hazardous Materials Regulations.
7. Executive Order 12196, Occupational Safety and Health Programs for Federal Employees.
8. AR 11-34, The Army Respiratory Protection Program.
9. AR 15-6, Procedure for Investigating Officers and Boards of Officers.
10. AR 40-5, Preventive Medicine.
11. AR 40-14, Control and Recording Procedures for Exposure to Ionizing Radiation and Radioactive Materials.
12. AR 40-583, Control of Potential Hazards to Health from Microwave and Radio Frequency Radiation.
13. AR 385-10, The Army Safety Program, with USACE Supplement 1.
14. AR 385-11, Ionizing Radiation Protection.
15. AR 385-16, System Safety Engineering and Management.
16. AR 385-30, Safety Color Code Markings and Signs.
17. AR 385-32, Protective Clothing and Equipment.
18. AR 385-40, Accident Reporting and Records, with USACE Supplement 1.

MRD-R 385-1-1
APP A
31 Jul 91

19. AR 385-55, Prevention of Motor Vehicle Accidents, with USACE Supplement 1.

20. AR 420-90, Fire Protection.

21. AR 600-55, Motor Vehicle Driver - Selection, Testing, and Licensing, with USACE Supplement 1.

22. ER 385-1-6, Standard Color and Markings for Protective Hats.

23. ER 385-1-31, The Control of Hazardous Energy.

24. ER 385-1-40, Occupational Health Program.

25. ER 385-1-80, Radiological Safety.

26. ER 385-1-85, Safety Management Evaluation.

27. ER 385-1-86, Underwater Diving.

28. ER 385-1-87, Identification and Abatement of Occupational Safety and Health Deficiencies.

29. ER-385-1-88, Operating Procedures.

30. ER 385-1-89, Hearing Conservation Program.

31. ER 385-1-90, Respiratory Protection Program.

32. ER 385-1-91, Training, Testing and Licensing of Boat Operators.

33. ER-385-1-92, Safety and Occupational Health Document Requirements for Hazardous Waste Site Remedial Actions.

34. ER 385-1-94, Contractor Award for Safe Performance.

35. ER 690-1-792, Federal Employees Occupational Health Program.

36. ER 1125-2-304, Inspection, Maintenance, Operation and Repair.

37. ER 1130-2-13, Pest Control Program for Civil Works Projects.

38. DoD 6055.5-M, Occupational Health Surveillance Manual.

39. EM 385-1-1, Safety and Health Requirements Manual.

40. EP 385-1-40, Boards of Investigation.

MRD-R 385-1-1

APP A

31 Jul 91

41. EP 385-1-58, Medical Surveillance Handbook.
42. EP 415-1-260, Resident Engineer's Management Guide.
43. TB MED 501, Hearing Conservation.
44. TB MED 502, Respiratory Protection Program.
45. TB MED 503, The Army Industrial Hygiene Program.
46. TB MED 506, Occupational Vision.
47. TB MED 523, Control of Hazards to Health from Microwave and Radio Frequency Radiation and Ultrasound.
48. TB MED 524, Control of Hazards to Health from Laser Radiation.
49. Occupational Health Guidelines for Chemical Hazards, National Institute for Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA), DHHS (NIOSH) Publication No. 81-123, January 1981.
50. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, NIOSH, OSHA, U.S. Coast Guard (USCG), and Environmental Protection Agency (EPA), October 1985.
51. USACE Chemical Hygiene Plan, CESO-I memorandum dated 19 July 1991, subject: OSHA Required Chemical Hygiene Plan.

APPENDIX B
RESPONSIBILITIES

1. General Responsibilities. The safety and occupational health program in the Missouri River Division will be uniformly applied to all activities. This program will be administered by the Division and District Commanders. Safety and occupational health personnel will conduct periodic surveys of all field activities, coordinate accident prevention throughout the Division, advise, assist, and stimulate uniformity in the prevention of accidents. Reports of the conditions found will be submitted to the Division and District Commanders by the respective safety and occupational health office personnel. The frequency and amount of detail in these surveys will be determined by the exposure and accident experience record at each field activity.

2. Staff Responsibilities.

a. Accident prevention will be applied as a management responsibility and will be integrated into all activities. Supervisory personnel are charged with the responsibility of informing subordinates as to the method by which accident prevention is to be applied. Accident prevention will be given consideration equal to other responsibilities of supervision and will be given due consideration when performance appraisals are performed. Specific reference to accident prevention will be made in the performance standards for persons with this as a major duty.

b. Responsibility for design application of the safety, occupational health, radiological safety and fire prevention programs is established in the Engineering and Planning Directorate at the division level and in the Engineering Division at the district level.

c. The Safety and Occupational Health Offices are established as staff units to assist and advise the Division and District Commanders in executing safety, occupational health, fire prevention, and radiological safety responsibilities.

3. Specific Responsibilities Safety and Occupational Health Offices. The Safety and Occupational Health Offices will:

a. Provide safety engineering criteria and safety information necessary for planning of accident prevention.

b. Maintain such accident records as are necessary to provide advice regarding accident experience. At the division and district levels, this includes giving advice to other staff elements when appropriate.

MRD-R 385-1-1

APP B

31 Jul 91

c. Review plans and specifications to ensure that necessary safety and occupational health features are included.

d. Advise the Division and District Commanders regarding safety, occupational health, fire prevention and radiological safety measures to be employed.

e. Coordinate the safety, occupational health, fire prevention and radiological safety programs as prescribed in AR 40-5, AR 385-10, AR 385-11, ER 385-1-40, ER 385-1-80, and 29 CFR Parts 1910, 1926, and 1960 of the Occupational Safety and Health Administration.

f. Survey, study, and evaluate operations from the viewpoint of safety, occupational health, fire prevention and radiological safety. When appropriate, submit recommendations to the Division and District Commanders, directors, division chiefs and chiefs of separate offices.

g. Recommend to the Division and District Commanders persons to serve on the Safety and Occupational Health Advisory Committees and the Radiation Control Committees.

h. Review Superfund and Defense Environmental Restoration Program (DERP) designs and inform the Hazardous, Toxic and Radiological Waste (HTRW) Design Center of any apparent errors and/or omissions in project plans and specifications so the appropriate organization can be notified. Projects will be reviewed with regard to design and constructability.

i. Provide recommendations regarding hazard pay determination.

j. Provide training regarding the OSHA Hazard Communication Standard, as appropriate.

4. Specific Safety and Occupational Health Responsibilities Engineering and Planning Directorate. The Engineering and Planning Directorate will:

a. Incorporate adequate safety and occupational health features into all designs, plans and specifications in compliance with EM 385-1-1, and other pertinent codes, laws, and regulations (Division and District levels).

b. Include safety, occupational health, fire prevention and radiological safety procedures in all inspections and include appropriate comments in their reports (Division and District levels).

31 Jul 91

c. Coordinate with the Safety and Occupational Health Office matters pertaining to safety, occupational health, fire prevention, and radiological safety (Division and District levels).

5. Specific Safety and Occupational Health Responsibilities - Construction - Operations Directorate. The Construction-Operations Directorate at the Division Office will:

a. Evaluate safety and occupational health compliance on all work and activities under their supervision.

b. Review plans and specifications to ensure that necessary safety and occupational health features are included.

c. Review accident reports to ascertain that positive action has been taken to prevent recurrence of an accident, and when such action is not sufficient, direct satisfactory action.

d. Include safety, occupational health, fire prevention and radiological safety procedures in all field inspections and include appropriate comments in their reports.

e. Ensure an effective accident prevention program is implemented for each hydroelectric power project which includes provisions of ER 385-1-31, The Control of Hazardous Energy.

f. Ensure a continuing public safety program is developed and promoted at each project. These programs will include, but not be limited to, water safety, traffic safety, and other related public use activities occurring on project lands.

g. Ensure the implementation of safety and occupational health programs for Corps employees at each operating lake project. Programs will include accident prevention and employee training in safety and occupational health.

h. Ensure all floating plants are maintained and operated in accordance with the regulations of the U.S. Coast Guard and U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, Section 26.

i. Ensure all land and floating plants include such safety and occupational health devices required of the general public to comply with safety and occupational health regulations of the states in which the projects are located.

MRD-R 385-1-1
APP B
31 Jul 91

j. Coordinate with the Safety and Occupational Health Office matters pertaining to safety, occupational health, fire prevention and radiological safety.

6. Specific Safety and Occupational Health Responsibilities - Construction Divisions. The Construction Divisions at the District Offices will:

a. Evaluate safety and occupational health compliance on all work and activities under their supervision.

b. Review plans and specifications to ensure that necessary safety and occupational health features are included.

c. Review accident reports to ascertain that positive action has been taken to prevent recurrence of an accident, and when such action is not sufficient, direct satisfactory action.

d. Include safety, occupational health, fire prevention and radiological safety procedures in all field inspections and include appropriate comments in their reports.

e. Coordinate with the Safety and Occupational Health Office matters pertaining to safety, occupational health, fire prevention and radiological safety.

f. Ensure the implementation of safety and occupational health programs for Corps employees at each area and resident office. Programs will include accident prevention and employee training in safety and occupational health. Included in the occupational health training will be training that is required by the OSHA Hazard Communication Standard.

7. Specific Safety and Occupational Health Responsibilities - Operations Divisions. The Operations Divisions at the District Offices will:

a. Evaluate safety and occupational health compliance on all work and activities under their supervision.

b. Review accident reports to ascertain that positive action has been taken to prevent recurrence of an accident, and when such action is not sufficient, direct satisfactory action.

c. Include safety, occupational health, fire prevention and radiological safety procedures in all field inspections and include appropriate comments in their reports.

31 Jul 91

d. Ensure an effective accident prevention program is implemented for each hydroelectric power project which includes provisions of ER 385-1-31, The Control of Hazardous Energy.

e. Ensure a continuing public safety program is developed and promoted at each project. These programs will include, but not be limited to, water safety, traffic safety, and other related public use activities occurring on project lands.

f. Ensure the implementation of safety and occupational health programs for Corps employees at each operating lake project. Programs will include accident prevention and employee training in safety and occupational health. Included in the occupational health training will be training that is required by the OSHA Hazard Communication Standard.

g. Ensure all floating plants are maintained and operated in accordance with the regulations of the U.S. Coast Guard and U.S. Army Corps of Engineers. In regard to the U.S. Army Corps of Engineers, the reference is EM 385-1-1, Safety and Health Requirements Manual, Section 26, Floating Plant and Marine Work.

h. Ensure all land and floating plants include such safety and occupational health devices required of the general public to comply with safety and occupational health regulations of the states in which the projects are located.

i. Coordinate with the Safety and Occupational Health Office matters pertaining to safety, occupational health, fire prevention and radiological safety.

8. Specific Safety and Occupational Health Responsibilities - Other Organizations. Other directorates, divisions, branches, and offices will participate in the Safety and Occupational Health Program and ensure that needed safety and occupational health measures encompass all personnel and activities.

APPENDIX C
OCCUPATIONAL HEALTH REQUIREMENTS

1. Purpose. This appendix establishes responsibilities and procedures for implementing the occupational health requirements.

2. Applicability. This appendix is applicable to all civilian employees in the Missouri River Division Office and the districts of the Missouri River Division.

3. References. See Appendix A because of the many references that apply to occupational health.

4. General. This appendix establishes requirements for health hazard evaluations, implementation of exposure control measures, and procedures for medical surveillance of employees with potential exposures to chemical, physical and biological agents on the job.

5. Responsibilities.

a. District Commanders. District Commanders will ensure compliance with these provisions.

b. Human Resources Offices will:

(1) Ensure necessary pre-employment medical examinations are obtained when filling vacant positions.

(2) Ensure all vacancy announcements and position descriptions clearly identify and list all recognized health hazards of the position, address the requirement for use of protective clothing and equipment when required by the position, and are reviewed/updated annually or as soon as a health hazard is recognized.

(3) Ensure that employees' medical records are filed appropriately and maintained in a confidential manner.

c. Division Safety and Occupational Health Office will:

(1) Provide administration, coordination, and technical review on occupational health, that is industrial hygiene and medical surveillance matters.

(2) Coordinate with the District Safety and Occupational Health Offices regarding compliance with the occupational health requirements.

MRD-R 385-1-1

APP C

31 Jul 91

(3) Coordinate or conduct occupational health program evaluations and industrial hygiene work place surveys to evaluate potential health hazard exposures. Recommend personal protective equipment, administrative, work practice, and engineering controls as appropriate to control exposures of identified health hazards.

(4) Assist supervisors on the selection of industrial hygiene testing equipment and on the training in the operation and maintenance of the equipment.

(5) Provide overall administration and management of the Medical Surveillance Program. See Appendix C, Annex A, Definitions; Annex B, Medical Surveillance Program; and Annex C, Standing Operating Procedures for Medical Surveillance Examinations.

(6) Monitor the total costs for all medical and industrial hygiene services.

(7) Confer with the examining physician when necessary to identify potential causes of occupational injury or illness. Recommend necessary preventive measures be incorporated into operational procedures.

d. District Safety and Occupational Health Offices will:

(1) Coordinate with CEMRD-SO regarding personnel or operational changes that may affect the Safety and Occupational Health Program.

(2) Provide overall management for the implementation of the Hazard Communication Standard criteria including Hazardous Material Inventory submittals and updates, written hazard communication programs, warning labels, material safety data sheets and employee information and training.

(3) Assist supervisors on the selection, use, and limitations of appropriate personal protective devices and ensure that appropriate training is provided to the users of the equipment.

(4) Assist supervisors on the selection of industrial hygiene testing equipment and on the training in the operation and maintenance of the equipment.

(5) Ensure that Standing Operating Procedures (SOPs) with the applicable activity hazard analysis and regulations are developed as required or determined necessary.

e. Supervisors Including Area Engineers, Resident Engineers, Project Engineers, Project Managers, Chiefs of Divisions and Staff Elements, and Separate Offices will:

(1) Appoint an individual to act as the single point of contact for administration of the Medical Surveillance Program.

(2) Ensure employees meet their scheduled medical examination appointment with the examining physician.

(3) Ensure Standard Form No. 78 (SF 78), United States Civil Service Commission, Certificate of Medical Examination, accurately describes the functional and environmental factors of the position.

(4) Initiate engineering measures to control employee exposures to hazardous substances and harmful physical agents.

(5) Initiate administrative and work practice controls, enforce the use of required personal protective equipment, ensure that protective equipment is maintained in a serviceable condition, and coordinate with the District Safety and Occupational Health Office on the selection, use and limitations of protective equipment and required training for employees.

(6) Ensure health hazards and status of employee's health is considered in the assignment of duties and filling positions.

(7) Annually review the working conditions paragraph in the employee job descriptions and ensure employees are not required to work beyond their physical capabilities. If employee is physically unable to perform the work, initiate an appropriate personnel action request.

(8) Monitor positions and apprise the District Safety and Occupational Health Office and Human Resources Office of any special or unusual physical requirements that should be documented in the official position description.

(9) Advise the District Safety and Occupational Health Offices whenever new activities, processes, chemicals, or equipment which may produce health hazards, are introduced into the working environment.

(10) Ensure work areas are surveyed in accordance with this appendix of this regulation.

(11) Ensure the Hazardous Material Inventory and the Hazardous Occupational Inventory are kept current and a notice is posted informing employees of their location and their right to review them.

MRD-R 385-1-1
APP C
31 Jul 91

(12) Ensure compliance with the Hazard Communication Standard requirements and all other applicable OSHA standards. This includes having a written program, training program and records, hazardous materials inventory, material safety data sheets and labeling system.

(13) Ensure designated employees have been trained in the operation and maintenance of industrial hygiene testing equipment possessed by the field activity.

f. Employees will:

(1) Notify the supervisor of any unusual health condition or change in health status that warrants medical evaluation or consideration relative to work assignments.

(2) Use prescribed personal protective devices, follow administrative and work practice controls, and utilize engineering controls. Employees shall promptly report damaged, or inoperable personal protective equipment and engineering control equipment to the supervisor.

(3) Notify the supervisor of any training desired or required to perform job activities.

6. Specific Exposures.

a. Hearing Conservation. See Appendix C, Occupational Health Requirements, Annex D, Hearing Conservation Program.

b. Pesticides. See Appendix C, Occupational Health Requirements; Annex E, Pesticide Protection Program; and Annex F, Respiratory Protection Program.

c. Occupational Vision. See Appendix C, Occupational Health Requirements; Annex G, Occupational Vision Program.

d. Ionizing Radiation. All personnel potentially exposed to ionizing radiation shall be included in the Personnel Dosimetry Program. A cumulative exposure record DD Form 1141 (Record of Occupational Exposure to Ionizing Radiation) shall be maintained for each individual in the Personnel Dosimetry Program. DD Form 1141 shall be retained in the employee's official medical folder in the Human Resources Office. In the Division Office and each District, a person shall be appointed on orders to maintain the personnel dosimetry records.

e. Other Harmful Chemical, Physical and Biological Agents. These hazards will be addressed on a case-by-case basis.

31 Jul 91

7. Employee Health Maintenance Medical Examinations. These are voluntary medical examinations conducted by the U.S. Public Health Service, Health Unit, in accordance with an annual quota assigned to each participating agency. Employees are scheduled for these medical examinations based upon such factors as personal desire, position occupied, age, and length of time since last examined. These medical examinations are not a part of the Medical Surveillance Program.

8. Engineering Control Measures. Protection against health hazards shall be accomplished by accepted engineering control measures. Administrative and work practice controls shall be used when engineering control measures are not feasible. When effective engineering and/or administrative work practices are not feasible, or while they are being instituted, personal protective equipment shall be provided and used.

9. Chemical Hygiene Plan. The Missouri River Division Laboratory Chemical Hygiene Plan shall follow the guidance contained in the USACE Chemical Hygiene Plan.

ANNEXES:

Annex A - Definitions

Annex B - Medical Surveillance Program

Annex C - Standing Operating Procedures (SOPs) for Medical
Surveillance Examinations

Annex D - Hearing Conservation Program

Annex E - Pesticide Protection Program

Annex F - Respiratory Protection Program

Annex G - Occupational Vision Program

ANNEX A
DEFINITIONS

Audiogram -	A record of the threshold of audibility of each ear at 500, 1000, 2000, 3000, 4000, and 6000 Hertz (Hz).
Blood Chemistry Screen - (Sometimes is called a "SMAC 21." Some times has 26 constituents analyzed and is called "26 panel.")	<ol style="list-style-type: none">1. Blood glucose2. BUN - Blood urea nitrogen3. Creatinine4. BUN/Creatinine Ratio5. Uric acid6. Sodium7. Potassium8. Chloride9. Calcium10. Phosphorus11. Iron, total12. Total protein to include globulin, albumin, A/G Ratio13. Cholesterol14. HDL Cholesterol15. LDL Cholesterol16. Cholesterol/HDL Cholesterol17. Triglyceride18. Total bilirubin19. Direct bilirubin20. Indirect bilirubin21. Alkaline phosphatase22. LDH - lactic dehydrogenase23. SGOT - serum glutamic - oxyaloacetic transaminase24. SGPT - serum glutamic - pyruvic transaminase25. Albumin26. Globulin
Blood Lead Level and Zinc Protoporphyrin Tests -	Tests to analyze the level of lead in a person's blood.
Chest Roentgenogram (PA) -	14"x17" chest roentgenogram (x-ray) film of a posterior-anterior (PA) projection.

MRD-R 385-1-1
APP C, ANNEX A
31 Jul 91

Cholinesterase Inhibiting
Pesticides -

Insecticides whose main effect is the inhibition of the enzyme cholinesterase in various tissues, resulting in the accumulation of acetylcholine at nerve endings. Increased amounts of acetylcholine results in excessive stimulation of muscle which causes paralysis of the affected individual.

Clinical Audiological
Evaluation -

To include pure-tone air and bone-conduction audiometric tests, speech reception thresholds, and speech discrimination tests. Tests are performed in order to determine whether the shift is permanent and/or work related, whether the type of hearing protection being used by the employee is adequate, and whether the employee should be allowed to return to work in hazardous noise.

Complete Blood Count (CBC) -

Includes hemoglobin, hematocrit, red cell indices, white cell count with differential.

Hazardous Material
Inventory (HMI) -

A listing of chemical, biological, or physical agents present at each work site which by virtue of their physical characteristics, use, or action upon the body constitutes a health hazard.

Hazardous Occupational
Inventory (HOI) -

A computer list, provided by the Occupational Health Coordinator, of employees who are required to take a periodic job-related medical examination under the Occupational Health Program.

Hazardous Substance -

A substance which by reason of being explosive, flammable, toxic, corrosive, oxidizing, irritating, or otherwise harmful, is likely to cause injury, illness, or death.

Impulse Noise -

Noise consisting of short bursts of acoustical energy and is characterized by a rapid rise time of not more than 35 milliseconds to a peak pressure. The total duration of a single pulse is not more than 500 milliseconds. When the interval between peaks is one second or less, the noise source should be considered steady noise.

Occupational Health
Coordinator -

The person that manages the Medical Surveillance Program.

Periodic Medical Examination -

Medical examination conducted every 1 to 4 years to ensure that the employee remains physically suitable to perform his or her job, detect early or subclinical effect as a result of overexposure to toxic chemicals or hazardous substances, and to monitor for unanticipated effects of long-term, low-level exposure to specific biological, chemical, and physical agents.

Physical Agents -

Includes sources of radiant heat, abnormal temperatures and humidity, excessive noise, improper or inadequate illumination, ultraviolet radiation, and x- and gamma rays.

MRD-R 385-1-1
APP C, ANNEX A
31 Jul 91

Pre-Employment Medical
Examination -

Medical examination conducted to determine whether a job applicant is physically suitable to perform work requirements and assignments defined in the job description and to provide baseline values for comparison with later values.

Pulmonary Function Test (PFT) -

Includes, as a minimum, the determination of Forced Expiratory Volume in 1 second (FEV₁), Forced Vital Capacity (FVC), and comparison with expected norms for the individual's age and height.

Urinalysis (UA) -

Includes tests for specific gravity, albumin, glucose, ketones, bilirubin.

ANNEX B
MEDICAL SURVEILLANCE PROGRAM

1. Purpose. This annex establishes the Medical Surveillance Program for job related medical examinations of civilian employees.

2. References.

- a. 29 CFR 1910, OSHA Regulations (for General Industry).
- b. 29 CFR 1926, OSHA Regulations (for Construction).
- c. AR 40-5, Preventive Medicine, paragraph 5-9, Medical Examinations.
- d. ER 385-1-40, Occupational Health Program.
- e. DoD 6055.5-M, Occupational Health Surveillance Manual.
- f. EP 385-1-58, Medical Surveillance Handbook.
- g. Occupational Health Guidelines for Chemical Hazards, NIOSH and OSHA, DHHS (NIOSH) Publication No. 81-123.
- h. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, NIOSH, OSHA, USCG, EPA.

3. Medical Examinations.

a. Job Related Medical Examinations. All workers listed in the Hazardous Occupational Inventory (HOI) will be given a periodic medical examination. The medical tests will vary for each employee and will be based on an employee's exposure to hazardous substances and harmful physical agents on the job. Seasonal and temporary employees of the Corps who work in a hazardous environment will be included in the Medical Surveillance Program if warranted by their exposure to hazardous substances or harmful physical agents. Medical examinations will be given every one to four years depending on the extent of exposure. As a result of the medical findings, specific action may have to be taken. Such actions may include modification of the work environment, transfer of an individual worker to another job, detail to another job pending correction of the work environment and the possibility of a medical disability retirement. The person in the Division or District Safety and Occupational Health Office that manages the Medical Surveillance Program determines which tests are performed based on the exposures of the individuals and the applicable

MRD-R 385-1-1
APP C, ANNEX B
31 Jul 91

regulations. The frequency of the examinations is determined by the criteria stated in the applicable regulations. In the case of chest roentgenograms, there is one performed as part of the baseline examination. Thereafter, the examining physician usually determines the frequency of the chest roentgenograms; however, some exposures require chest roentgenograms based on a scheduled bases stated in OSHA regulations or recommended by medical authorities.

b. Rationale for Examinations. There are three primary reasons for performing job related examinations.

(1) To determine a worker's capability to physically and mentally perform a job without undue risk or harm.

(2) To indicate individuals who are hypersensitive to low level concentrations of chemical, biological or physical agents.

(3) To detect early effects resulting from accidental or inadvertent exposure to hazardous agents.

ANNEX C
STANDING OPERATING PROCEDURES (SOPs)
FOR
MEDICAL SURVEILLANCE EXAMINATIONS

These procedures apply to employees who do not utilize military medical facilities. Employees at work sites who receive their medical examinations at military facilities shall contact the person that manages the medical surveillance program for proper procedures.

1. Criteria for Preplacement Medical Examinations. Job applicants applying for positions that are included in the Occupational Health Program. Preplacement exams are administrated by the Human Resources Office.

2. Criteria for Periodic Medical Examinations.

a. Employees serving in positions that are included in the HOI. The HOI is prepared by the person that manages the Medical Surveillance Program based on the potential exposures to harmful chemical, physical and biological agents.

b. Employees who transfer to a new position having medical examination requirements or new medical examination requirements.

3. Criteria for Preseparation Medical Examinations. Employees serving in positions included in the HOI and leaving government service or transferring to another agency. The need for a final medical examination will be determined by the Safety and Occupational Health Office and the employee's supervisor.

4. General Instructions.

a. Points of contact (POCs) will update the HOI at the first of each month and notify the appropriate safety and occupational health office of any changes. POCs shall notify the safety and occupational health office as soon as possible of any employee who will be leaving government service or transferring to another agency.

b. The safety and occupational health office will send to each point of contact an updated HOI at least annually.

c. The division and district safety and occupational health offices will determine procedures for distribution of supplies for packets of necessary forms to each point of contact and preparation of the packets as needed for the organizations they service. Each packet will consist of:

(1) SF 78, Certificate of Medical Examination. Part A of the SF 78 is to be completed by the employee, Part B by the supervisor, and Part C by the examining physician. Functional Requirements - #4A - items #24-31 stipulate vision requirements on the SF 78. Annex G of this appendix should be referenced for vision requirements for motor vehicle operators, incidental operators or operators of hoisting equipment. Item #27 should be circled and the specific vision requirements written in.

(2) MRD Form 0960, Request for Medical Testing. MRD Form 0960 is prepared by the Occupational Health Coordinator. The form instructs the examining physician regarding what medical tests are authorized for each employee. In most cases, the medical examination is a comprehensive occupational health medical examination; however, some variation in testing occurs based on an employee's potential exposures to harmful chemical, physical and biological agents on the job. The guidelines for the content of the examinations are DoD 6055.5-M, Occupational Health Guidelines for Chemical Hazards, and Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities. The baseline examination includes a chest roentgenogram. After the baseline examination, a chest roentgenogram may be performed at the discretion of the examining physician. If any subsequent tests or examinations are needed, the Occupational Health Coordinator authorizes them in consultation with the examining physician. This form has three versions: "A" for the Division Office; "B" for the Kansas City District; and "C" for the Omaha District.

(3) MRD Form 0973, Medical Surveillance Exam Report. The identifying information on the form will be completed by either the safety and occupational health office or the point of contract, whichever procedure the safety and occupational health office decides to use. One section of MRD Form 0973 is to be completed by the supervisor prior to the medical exam if the employee is required to wear a respirator. The remainder of the form will be completed by the examining physician. MRD Form 0973 will be used as a medical clearance for respirator use and to identify occupational health related medical problems and health related job limitations. The reverse of MRD Form 0973 is a Privacy Act Statement which should be read carefully by each employee. The appropriate safety and occupational health office will send each employee a copy of the completed MRD Form 0973 through his or her supervisor. This form should be filed at the employee's work site. This form has three versions: "A" for the Division Office; "B" for the Kansas City District; and "C" for the Omaha District.

(4) Employee's Instructions for the Medical Surveillance Program Exam. Self-explanatory.

(5) Examining Physician's Instructions for the Medical Surveillance Program Exam. Self-explanatory.

d. Points of contact shall schedule employees for their examinations in advance.

e. Supervisor directs employees to examining physician with packet of forms.

f. Examining physician completes medical examination and forwards all tests results and forms to the appropriate safety and occupational health office.

g. The original SF 78, a copy of MRD Form 0960, a copy of the MRD Form 0973, and a copy of any other medical exam results will be sent to the district human resources office to be filed in the employee's medical record file after they have been reviewed by the appropriate safety and occupational health office. Individual employees may request the results of their occupational health exam from their human resources office. Medical tests which identify a non-work related problem will be copied and sent to the employee in a sealed envelope by the appropriate safety and occupational health office. Individuals whose medical tests identify a potential work-related problem may be referred to a physician for further evaluation, and any job limitations will be stated on MRD Form 0973. If an employee has any further medical tests completed without authorization from the appropriate safety and occupational health office, all costs will be at the employee's expense.

h. The appropriate safety and occupational health office establishes suspense dates for reexamination.

5. Changes In Procedures. If district safety and occupational health offices want to change the procedures, they will submit a written request to CEMRD-SO explaining the requested change(s).

ANNEX D
HEARING CONSERVATION PROGRAM

1. Purpose. This annex establishes the Hearing Conservation Program.
2. References.
 - a. 29 CFR 1910.95, OSHA Regulation, Occupational Noise Exposure.
 - b. AR 40-5, Preventive Medicine, paragraph 5-16, Hearing Conservation.
 - c. AR 385-30, Safety Color Code Markings and Signs.
 - d. ER 385-1-89, Hearing Conservation Program.
 - e. TB MED 501, Hearing Conservation.
3. General. ER 385-1-89 specifies Corps of Engineers requirements concerning the implementation of the hearing conservation program. The prevention of hearing loss from exposure to noise involves the identification and evaluation of noise hazardous areas, posting of noise hazardous areas, engineering control measures, the proper selection and use of hearing protective devices, and baseline, periodic and preseparation audiometric monitoring of personnel identified as working in noise hazardous areas, supplemented by health education, supervision and discipline of personnel.
4. Hazardous Noise.
 - a. Steady state noise is considered hazardous when it equals or exceeds 85 dBA.
 - b. Impulse or impact noise is considered hazardous when it exceeds 140 dBP.
5. Noise Surveys (Sound Level Meter Surveys) and Hazard Evaluation.
 - a. Sound level meter surveys shall be performed in all work areas which are suspected to be noise hazardous. DD Form 2214, Noise Survey (Sound Level Meter Survey), shall be used to record the surveys.
 - b. The sound level shall be suspected to be hazardous when two persons with normal hearing, standing two feet apart, cannot converse in normal tones.

c. Steady state sound level tests shall be made with a sound level measurement device that meets or exceeds requirements for Type II sound level meters as specified in ANSI Standard S1.4-1983, "Specifications for Sound Level Meters" using the A-weighting network and slow meter response. The average A-weighted sound level is determined by readings taken at the approximate position of the worker's exposed ear. A sound level calibrator shall be used to calibrate the sound level measurement instrument before each use. Noise hazardous areas shall be resurveyed at least once a year, and within 30 days of any change in process, equipment, or personnel assignment which will increase the potential for exposing employees not previously exposed, or will potentially increase exposure to the extent that the personal protection being used may no longer provide sufficient attenuation. Records of the surveys will be kept in the District Safety and Occupational Health Offices. These records shall include number, type and location of noise sources; a list of personnel working in the noise hazardous work areas; type, model, serial number and date of most recent factory calibration of the sound level measurement device used in this evaluation, and the dBA levels obtained.

d. The measurement of impulse or impact noise requires the use of special equipment such as an impact noise analyzer. A survey of this type of noise shall be requested from the District Safety and Occupational Health Office.

6. Noise Control.

a. Engineering Controls. Feasible engineering controls shall be used to reduce noise exposure to within permissible limits.

b. Administrative Controls. Administrative controls involve a reduction of the noise exposure time by changing job schedules or rotating personnel to reduce the amount of time spent in noisy areas. The control room at the power plants also reduces the time of noise exposure by allowing employees to monitor the console gauges away from the noise producing area.

c. Personal Protection. There are some operations within the Corps that cannot be quieted by engineering methods. Ear plugs or muffs worn by workers can provide effective protection in such cases. Ear plugs or muffs shall be furnished and their use enforced when noise level exposure equals or exceeds 85 dBA steady state noise or exceeds 140 dBP impulse noise. Both plugs and muffs shall be available and worn for exposures about 108 dBA or 165 dBP. Hearing protector attenuations shall be evaluated during the selection process in order to ensure that noise reaching the ear is less than 85 dBA. Note: Some ear plugs require fitting by a health professional.

7. Audiograms.

a. A baseline audiogram must be performed for new hires and transfer employees before they are permitted to start work in noise-hazardous areas. Existing employees, for which baseline audiograms are not available, will be given a baseline audiogram, as soon as possible, but within 30 days. After a baseline audiogram is obtained, audiograms are required annually for employees exposed to hazardous noise. Judgments concerning exclusion from audiometric testing will be made only by safety/health personnel.

b. Annual evaluations shall be made by comparing the current versus the baseline audiogram. When a significant threshold shift exists, appropriate action must be taken. The definitions are the following:

DOD Shift Definition: 20 dB difference at 1000, 2000, 3000 or 4000 Hz in either ear (Ref: TB MED 501, para 9b(2)(a)).

OSHA Shift Definition: 10 dB average at 2000, 3000 and 4000 Hz in either ear (Ref: 29 CFR 1910.95(g)(10)).

OWCP Shift Definition: If average at 500, 1000, 2000 and 3000 Hz is greater than 25 dB, then compensable (Ref FECA Procedure Manual, Chapter 2, para 16c(2)(a)).

When calculating differences, the sign convention is the following (Ref: TB MED 501, App F. para F-2e(4)):

"+" when current hearing threshold is *worse* than baseline;

"-" when current hearing threshold is *better* than baseline.

c. These definitions are on MRD Form 0974, Compilation of Audiogram Data, which shall be used for entry of the data.

d. If an audiogram indicates a significant threshold shift, the employee will be removed from working in a noise-hazardous area or at a noise-hazardous operation, retested as soon as possible after a 14-hour period away from work place noise, but within 30 days. The purpose of the retest is to determine if the threshold shift is temporary.

e. If a retest indicates that a significant threshold shift exists when using the definitions stated in paragraphs 8b or 8c above, employees shall be sent to an audiologist or otolaryngologist for a clinical audiological evaluation at the Government's expense. If the threshold shift(s) are confirmed, the results obtained from the audiologist or otolaryngologist shall be substituted as the employee's new baseline.

f. Audiograms shall be preceded by a period of at least 14 hours away from hazardous work place noise, and employees shall be instructed to avoid loud noises during off-duty hours prior to taking an audiogram.

MRD-R 385-1-1
APP C, ANNEX D
31 Jul 91

g. ER 385-1-89 provides further information and requirements regarding audiometric testing and the evaluation of audiograms.

8. Caution Signs for Noise-Hazardous Areas.

a. Signs shall be posted at entrances to or on the periphery of all well-defined work areas in which employees could be exposed to hazardous noise.

b. Warning signs shall clearly indicate that the area is a high noise area and shall indicate that hearing protectors are required. Signs shall be in accordance with AR 385-30, Safety Color Code Markings and Signs.

c. Each tool or piece of equipment which produces A-weighted sound pressure levels of 85 dB or greater shall be marked conspicuously to alert personnel, except in those instances where an entire space is designated as a noise-hazardous area.

9. Training. Each employee included in the hearing conservation program shall receive training in accordance with ER 385-1-89. Consultation and assistance in training will be made available through the District Safety and Occupational Health Offices and/or Training and Development.

ANNEX E
PESTICIDE PROTECTION PROGRAM

1. Purpose. This annex establishes procedures for the safe storage, transportation and handling of pesticides.
2. Reference. ER 1130-2-413, Pest Control Program for Civil Works Projects.
3. General. ER 1130-2-413 specifies Corps of Engineers requirements concerning the use of chemicals on civil works projects and governs the implementation of the Pest Control Program.
4. Medical Examinations. All personnel required to handle or apply pesticides or to directly supervise their application will have pre-employment, periodic (annual) and pre-separation medical examinations. The medical examinations will include as a minimum:
 - a. Occupational history.
 - b. Hands-on examination by the physician.
 - c. Pulmonary function test, which includes FEV and FVC.
 - d. Blood chemistry screen (26-panel) which includes the necessary liver function tests and renal function tests.
 - e. Urinalysis which includes tests for specific gravity, albumin, glucose, and ketones.
 - f. Chest roentgenogram (14" x 17" posterior-anterior chest film). After the baseline examination, this is authorized at the discretion of the physician, if needed to monitor exposure to job-related conditions.
 - g. Employees who handle, apply, or directly supervise the application of cholinesterase inhibiting insecticides shall also be given a serum cholinesterase test during their periodic examination.
5. Protective Clothing and Equipment.
 - a. Protective Clothing - Personnel shall be furnished and required to wear appropriate protective clothing, such as impervious clothing, boots, gloves, rain suits, and face shields when handling or applying pesticides.

MRD-R 385-1-1
APP C, ANNEX E
31 Jul 91

b. Protective Equipment - Personnel handling or applying pesticides shall be furnished and required to wear appropriate respiratory protective equipment when specified by the pesticide label and/or material safety data sheet.

6. Preventive Safety Measures. Special emphasis shall be given to the safety measures listed in ER 1 130-2-413, Appendix A.

7. Training. All personnel directly involved in pesticide control shall be properly trained in accordance with ER 1130-2-413. Consultation and assistance in training will be available through the District Safety and Occupational Health Office, the District Operations Officer, and/or Training and Development Branch.

8. Emergencies. If a pesticide poisoning occurs, do the following:

a. Call the nearest poison control center, or if that is not possible, call the nearest physician. Below is a list of regional poison control centers that are certified by the American Association of Poison Control Centers as of the date of this regulation:

(1) Colorado:

Rocky Mountain Poison and Drug Center
645 Bannock Street
Denver, CO 80204-4507
Emergency Numbers: (303) 629-1123
(800) 332-3073 (CO only)

(2) Michigan:

Blodgett Regional Poison Center
1840 Wealthy SE
Grand Rapids, MI 49506
Emergency Numbers: (800) 632-2727 (MI only)
(800) 356-3232 (Telecommunication
Device for the Deaf)

Poison Control Center
Children's Hospital of Michigan
3901 Beaubien Boulevard
Detroit, MI 48201
Emergency Numbers: (313) 745-5711
(800) 462-6642 (MI only)

(3) Minnesota:

Hennepin Regional Poison Center
Hennepin County Medical Center
701 Park Avenue
Minneapolis, MN 55415
Emergency Numbers: (612) 347-3141
(612) 337-7474 (Telecommunications
Device for the Deaf)

Minnesota Regional Poison Center
St. Paul-Ramsey Medical Center
640 Jackson Street
St. Panel MN 55101
Emergency Number: (612) 221-2113

(4) Missouri:

Center Cardinal Glennon Children's Hospital Regional Poison
1465 South Grand Boulevard
St. Louis, MO 63104
Emergency Numbers: (314) 772-5200
(800) 366-8888

(5) Montana:

Rocky Mountain Poison and Drug Center
645 Bannock Skeet
Denver, CO 80204-4507
Emergency Number: (800) 525-5042 (MT only)

(6) Nebraska:

The Poison Center
8301 Dodge Skeet
Omaha, NE 68114
Emergency Numbers: (402) 390-5400
(800) 642-9999 (NE only)
(800) 228-9515 (Surrounding States)

(7) Wyoming:

Rocky Mountain Poison and Drug Center
645 Bannock Street
Denver, CO 80204-4507
Emergency Number: (800) 442-2702 (WY only)

b. Chemical emergency information for police officers, firefighters and medical personnel, can be obtained immediately from the following organization:

Chemical Transportation Emergency Center
CHEMTREC (800) 424-9300

ANNEX F
RESPIRATORY PROTECTION PROGRAM

1. Purpose. This annex establishes the Respiratory Protection Program.

2. References.

- a. 29 CFR 1910.134, OSHA Regulation, Respiratory Protection.
- b. AR 11-34, The Army Respiratory Protection Program.
- c. ER 385-1-90, Respiratory Protection Program.
- d. TB MED 502, Respiratory Protection Program.

3. General. ER 385-1-90 specifies Corps of Engineers requirements concerning the implementation of the respiratory protection program. This program is to ensure that all practical safeguards and precautions are taken to prevent occupational disease or injury to personnel from respiratory exposure to hazardous atmospheres.

4. Respirator Selection.

a. Respirators shall be selected according to the hazards to which a worker is exposed and shall be approved for those hazards by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH). Assistance in determining respirator need and in selecting the proper respirator will be available from the District Safety and Occupational Health Offices.

b. If possible, respirators will be assigned to individual workers for their own use. Employees assigned respirators will ensure respirators are kept clean and serviceable.

5. Respiratory Protection SOP. District Safety and Occupational Health Offices shall ensure that a written SOP or regulation is developed which establishes procedures and assigns responsibilities for all aspects of the respiratory protection program applicable to each field activity.

6. Medical Examinations. Persons shall not be assigned to tasks requiring the use of respirators unless it is determined that they are physically able to perform the work and use the equipment. The periodic medical examination will include a hands-on examination by the physician, a pulmonary function test (PFT), and specific medical tests for suspected contaminant exposures.

MRD-R 385-1-1
APP C, ANNEX F
31 Jul 91

7. Approval of Respiratory Protective Devices. Approvals for respiratory protective devices are jointly issued by MSHA/NIOSH. Bureau of Mines (BM) approved units now in use shall be immediately replaced with MSHA/NIOSH approved respirators.

8. Training. Each employee who may be required to wear a respirator of any type shall receive instruction and training in the proper use and limitations of respiratory protective equipment. Each employee shall be instructed on the proper maintenance of respirators and methods to ensure adequate fit and function of the respirator. Consultation and assistance in training will be made available through the District Safety and Occupational Health Offices and/or Training and Development.

ANNEX G
OCCUPATIONAL VISION PROGRAM

1. Purpose. This annex establishes the Occupational Vision Program.

2. References.

a. AR 40-5, Preventive Medicine, paragraph 5-12, Occupational Vision.

b. TB MED 506, Occupational Vision.

3. Protective Eye wear. Wherever and whenever an operation or activity has been classified as eye-hazardous, protective devices shall be mandatory. Mechanics with hammers and chisels, operators of power tools and even office employees whose work brings them into hazardous areas should be protected against flying particles by safety glasses incorporating impact-resistant lenses of plastic or hardened glass. Particular jobs such as jackhammer and some grinding operations require safety glasses with side shields, goggles and/or face shields. The use of absorptive lenses may be required for specific operations where excess light is not readily controllable.

4. Use of Contact Lenses. The use of contact lenses is prohibited whenever there are chemical eye hazards, under a respiratory protective mask, and where the atmosphere contains particles which could work under the lens and cause serious injury to the cornea.

5. Vision Requirements for Motor Vehicle and Incidental Operators and Operators Hoisting Equipment.

a. Office of Personnel Management (OPM) recognizes the following standard visual requirement for both motor vehicle operators and incidental operators: For unlimited operation of a motor vehicle, vision must be at least 20/40 (Snellen) in one eye and 20/70 (Snellen) in the other, with or without glasses or corrective lenses. A person who may be blind in one eye but whose vision tests at least 20/30 (Snellen) in the other, with or without corrective lenses, is acceptable for limited operation. OPM does not require the ability to distinguish basic or shades of colors. The vision screening test shall be given once every 3 years.

b. All operators of hoisting equipment used for hoisting personnel shall, as a minimum, have vision of at least 20/30 (Snellen) in one eye and 20/50 (Snellen) in the other, with or without corrective lenses. Hoisting equipment operators must have the ability to distinguish colors if required for safe operation. The vision screening test shall be given annually. Reference: EM 385-1-1, Section 5, Physical Qualifications of Employees.

APPENDIX D
PROTECTIVE CLOTHING AND EQUIPMENT (PCE)

1. Purpose. This appendix establishes the policy regarding PCE furnished by the Government to employees.

2. Applicability. This appendix applies to all employees in the Missouri River Division Office and the districts of the Missouri River Division.

3. References.

a. AR 385-32, Protective Clothing and Equipment.

b. ER 385-1-6, Standard Color and Markings for Protective Hats.

4. General.

a. PCE shall be provided in accordance with AR 385-32.

b. All acquisitions of PCE shall be in accordance with standard acquisition procedures. PCE will remain the property of the Government and must be returned to the issuing organization when no longer required.

c. Annex A lists examples of PCE that are normally provided when justified for the job. Division or district safety and occupational health offices can provide advice on whether the PCE are appropriate for the job and assist the supervisor or employee by recommending the appropriate PCE for a specific job.

d. Annex B contains a sample procedure to follow when supervisors/managers request items not listed in Annex A. To avoid personal liability, questionable items should be reviewed by the Safety and Occupational Health Office prior to purchase and have its indication of the items being appropriate. Submit a copy of the correspondence with the requisition or request for reimbursement of impress funds.

ANNEXES:

ANNEX A - Examples of PCE

ANNEX B - Memorandum Requesting
S&OH Office Review
of Unusual PCE

ANNEX A
EXAMPLES OF PCE

1. Hard hats and liners.
2. Eye protection:
 - a. Safety glasses.
 - b. Goggles.
 - c. Full face shield.
3. Respiratory protection.
4. Hearing protection.
5. Foot protection:
 - a. Safety shoes and boots - worn when lifting and carrying heavy objects or working around moving equipment.
 - b. Insulated boots - worn in cold weather; can also be protective toe and waterproof.
 - c. Waterproof boots - worn in wet or damp areas; can also be protective toe and insulated.
 - d. Oil resistant boots and shoes - worn when working in shop and maintenance areas (always purchased with protective toe).
 - e. Hip boots and waders - worn during dewatering, water sampling, gathering fish, working in raw sewage, etc.
6. Rain gear - offers protection from weather and water when working outside and on special jobs like dewatering, stop log changing, checking switch gear, etc.
7. Parkas and insulated coveralls - worn for outdoor work in cold weather.
8. Gloves:
 - a. Leather or heavy duty canvas - worn for handling material, working with hand tools or hot material, picking up trash, pulling thistle, etc.

b. Rubber or impervious (reusable) - worn when handling pesticides, solvents, paints, cleaning materials, acids, caustics, etc.

c. Plastic (disposable) - worn when using pesticides.

d. Electrical - worn when working on energized electrical circuits.

e. Welders - flame retardant with gauntlet cuff.

9. Coveralls (polypropylene, spunbonded olefin or other appropriate material) - worn as disposable items for one-time use to avoid exposure to and spread of toxic materials.

10. Coveralls (cotton or other washable material) - worn as reusable items to avoid exposure to irritant, toxic or corrosive materials, or applications that would ruin normal work clothes.

11. Flotation coats and suits - provide flotation and hypothermia protection for employees working near or on the water.

12. Personal flotation devices (PFDs) - worn when working near or on the water in all kinds of weather.

13. Insect bite kits - issued to employees sensitive or allergic to insect bites and stings. Purchase requires a prescription.

14. Sweat bands - worn to prevent sweat from running into eyes and obstructing vision.

15. Chaps - worn to prevent chain saw cuts.

16. Safety belts and lanyards - worn for fall protection.

17. Knee pads - worn to prevent bruising or scraping when working on knees.

18. High visibility vests - worn when exposed to vehicular traffic.

19. Ice cleats - worn to prevent falling on ice.

20. Insect repellent - used in areas infected with chiggers, mosquitoes and ticks.

21. Lab coats and aprons - worn when exposed to chemical hazards.

MRD-R 385-1-1
APP D
31 Jul 91

ANNEX B
MEMORANDUM REQUESTING SAFETY AND OCCUPATIONAL
HEALTH OFFICE REVIEW OF UNUSUAL PCE

CEMRO-OP-XX (385)

3 Sep 90

MEMORANDUM FOR CEMRO-SO

SUBJECT: Request for Safety and Occupational Health Office Review of Unusual Protective Clothing and Equipment (PCE)

1. Request your review of the following PCE and information related to it. Please provide your comments regarding appropriateness and any other comments you may have.

a. Item of PCE: Safety glasses with ultraviolet protection. Specifications are enclosure 1.

b. Purpose: To protect eyes when servicing xenon arc lamps. Hazard analysis is enclosure 2.

2. Request your reply to CEMRO-OP-XX by 16 Sep 90.

SIGNATURE BLOCK

2 Encls
as

CEMRO-SO 1st End

DA, Omaha District

10 Sep 90

FOR CEMRO-OP-XX

The above listed item is appropriate PCE.

SIGNATURE BLOCK

2 Encls
wd

APPENDIX E
SAFETY AND OCCUPATIONAL HEALTH
MANAGEMENT EVALUATIONS

1. Purpose. This appendix establishes policy and programs for surveying, analyzing, and evaluating districts for management effort and effectiveness in the Safety and Occupational Health Program.

2. Applicability. This appendix applies to the evaluations of the districts in the Missouri River Division.

3. References.

- a. AR 385-10, The Army Safety Program, with USACE Supplement 1.
- b. ER 385-1-85, Safety Management Evaluation.

4. General Policy. It is the policy of the Division Commander that the Safety and Occupational Health Program of each district be evaluated as to its applicability and effectiveness.

5. Program Evaluation. CEMRD-SO will provide a rating system at least 30 days in advance of the evaluation. Annex A provides a sample rating system for a district. Annex B provides a sample of evaluation elements for an Area/Resident Office. Annex C provides a sample of evaluation elements for a Construction Project. Annex D provides a sample of evaluation elements for an Operating Project.

ANNEXES:

- ANNEX A - Criteria for Safety and Occupational Health
Program Management Evaluation of District
- ANNEX B - Safety and Occupational Health Management
Evaluation Area/Resident Office
- ANNEX C - Safety and Occupational Health Management
Evaluation Construction Project
- ANNEX D - Safety and Occupational Health Management
Evaluation Operating Project

ANNEX A
CRITERIA FOR
SAFETY AND OCCUPATIONAL HEALTH PROGRAM
MANAGEMENT EVALUATION OF DISTRICT

SUMMARY OF RATINGS

DISTRICT:

COMMANDER:

CHIEF OF S&OH OFFICE:

DATE OF EVALUATION:

EVALUATION PERFORMED BY:

<u>ELEMENTS</u>	<u>POSSIBLE PERCENT</u>	<u>EVALUATION PERCENT</u>
1. Policy Statement	2	
2. Program Document	7	
3. Government Personnel S&OH	35	
4. Contractor Personnel S&OH	19	
5. Public Safety and Health	14	
6. Safety Information Management System	5	
7. Goals and Milestones	1	
8. Design S&OH (Facility System S&OH)	6	
9. Performance Standards and Evaluation System	6	
10. Professional Development of S&OH Office Staff	5	
TOTAL	<hr/> 100	

NOTE: Not all the necessary information will be available in the District Office. Therefore, some rating elements will have to be initially indicated "Not Rated" until the Chief of CEMRD-SO visits a sample of the civil works operating projects, construction resident offices and construction projects.

RATING ELEMENTS

1. Policy Statement. The district must have a written S&OH Policy Statement signed by the current Commander and/or Director. Policy Statement was presented at time of evaluation. (2%)

a. Policy Statement establishes Commander and/or Director as responsible for assuring that a positive and aggressive S&OH Program exists. (1 %)

b. Policy Statement includes all the principles established in AR 385-10, chapter 1-5, "Policy". This can be accomplished by distributing to all staff elements a copy of the MRD Safety and Occupational Health Policy Statement which has all these principles. (1 %)

Findings:

Recommendations:

2. Program Document. The district must have current written S&OH program management tools. Document was presented at time of evaluation. (7%)

a. Document covers the areas of program management, government personnel safety and occupational health, contractor personnel safety and occupational health, public safety, accident investigation and reporting, exposure reporting, safety training, safety promotion and awards, S&OH management evaluations (internal and subordinate), annual site visits, hazard identification and abatement, design S&OH (facility system S&OH), and encompasses all missions, elements, and program areas of responsibility. (5%)

b. Document is updated at least every three years. (2%)

Findings:

Recommendations:

3. Government Personnel Safety and Occupational Health. The district must have specific S&OH programs developed and implemented to maintain safe and healthful work environments, procedures, personnel, equipment and protect against accidental loss. Documentation was presented at time of evaluation and covered the following: (35 %)

a. Work place inspection and hazard abatement program. (5 %)

b. Hazard Communication Standard (personnel training program, program document, hazardous material inventory, MSDSs, labeling system). (5%)

- c. Medical Surveillance Program (Job Hazard Analyses, preemployment and annual job related medical exams). (5%)
- d. Job and Activity Hazard Analyses. (3%)
- e. S&OH Training. (2 %)
- f. Radiation Protection Program. (2%)
- g. Radiological Defense Program. (2%)
- h. Hearing Conservation Program. (2%)
- i. Vision Protection Program. (2%)
- j. Respiratory Protection Program. (2 %)
- k. Safety and Occupational Health Promotion and Awards Program. (2 %)
- l. Diving Safety Program. (1%)
- m. Employee reporting of unsafe/unhealthful working conditions. (1 %)
- n. S&OH/Wellness Committees. (1 %)

Findings:

Recommendations:

4. Contractor Personnel Safety and Occupational Health. Through contractual provisions and administrative programs, the district requires and ensures that contractors provide for the safety and occupational health of their employees. Contract files were reviewed at random. District requires and has documented evidence of the following minimum requirements. (19%)

- a. Contractor notification to FAR clause, entitled "Accident Prevention". (2%)
- b. Accident Prevention Plan review/acceptance procedures. (2 %)
- c. Procedures for attendance at preconstruction S&OH conferences. (2%)
- d. Activity Hazard Analysis review/acceptance procedures. (2 %)

MRD-R 385-1-1
APP E, ANNEX A
31 Jul 91

e. Contractor compliance inspections, detailing frequency, documentation, and follow-up requirements. (2%)

f. Procedures used to gain contractor compliance with safety and occupational health provisions. (2%)

g. Contractor personnel safety and occupational health training requirements and monitoring their accomplishment. (2%)

h. Accident reporting.(2%)

i. Equipment testing and inspection programs. (1 %)

j. Awards Program. (1 %)

k. Procedures for obtaining waivers to Corps requirements. (1 %)

Findings:

Recommendations:

5. Public Safety and Health. The district administers and operates safe and healthful facilities. Programs were reviewed for effectiveness during evaluation. The district performs: (14%)

a. Public safety facility inspections. (5%)

b. Public safety promotion programs. (5%)

c. Facilities safety and health design reviews. (Was the S&OH Office involved in the facility design review process?) (4%)

Findings:

Recommendations:

6. Safety Information Management System. The district collects, analyzes, and measures S&OH data to develop local policy and program emphasis. The system used was reviewed during evaluation. (5%)

a. District requirements for accident and occupational illness investigation and reporting, and exposure reporting are consistent with USACE Supplement 1 to AR 385-40. (3 %)

b. District S&OH Office performs periodic accident and occupational illness trend analyses to determine effectiveness of S&OH Program and areas requiring special emphasis. District S&OH Office or Executive Office briefs on the results of the analyses and corrective actions taken at the Command Management Review. (2%)

Findings:

Recommendations:

7. Goals and Milestones. The district has established written goals and milestones that are pertinent to the agency's mission and consistent with those of higher headquarters. (1%)

Findings:

Recommendations:

8. Design S&OH (Facility System S&OH). The district has a design/facilities system S&OH program whereby high-risk facilities were analyzed for hazard assessment code, and controlled through the application of system safety procedures. (6%)

a. The district safety and occupational health program document covered requirements for design S&OH reviews. (2%)

b. The S&OH Office is involved in design reviews. (2%)

c. District design, construction, and S&OH Office personnel received the appropriate facility systems S&OH or design S&OH training. (2%)

Findings:

Recommendations:

9. Performance Standards and Evaluation System. A sample of performance standards and evaluations for staff level supervisors/managers will be reviewed during the evaluation of the district. (6%)

a. All staff level supervisors/managers have measurable safety and occupational health performance standards incorporated into their performance standards. (3%)

MRD-R 385-1-1
APP E, ANNEX A
31 Jul 91

b. The S&OH Office provides comments regarding the annual performance evaluation of supervisors' S&OH performance. (3 %)

Findings:

Recommendations:

10. Professional Development of S&OH Office Staff. Needs for professional development have been identified. Individual Development Plans have been prepared for the S&OH Office staff to meet the needs. (5%).

Findings:

Recommendations.

ANNEX B
SAFETY AND OCCUPATIONAL HEALTH
MANAGEMENT EVALUATION
AREA/RESIDENT OFFICE

Area Office:

Area Engineer:

S&OH Policy Statements Posted on Bulletin Board:

HQUSACE:_____ Division: _____

District:_____ Area office:_____

OSHA Poster on Bulletin Board:_____

S&OH Program Document(s):_____

Resident Office:_____

Resident Engineer:_____

S&OH Policy Statements Posted on Bulletin Board:

HQUSACE:_____ Division:_____

District:_____ Area Office:_____

Resident Office:_____

OSHA Poster on Bulletin Board:_____

S&OH Program Documents):_____

Evaluator:_____ Date:_____

ANNEX C
SAFETY AND OCCUPATIONAL HEALTH
MANAGEMENT EVALUATION
CONSTRUCTION PROJECT

Project Name:_____

Contract Number:_____

Contractor:_____

Location: Area Office:_____

Resident Office:_____

Personnel Met: Project Engineer:_____

Construction Rep/Inspec:_____

Accident Prevention Plan:_____

Activity Hazard Analyses (Phase Safety Plans):_____

Quality Control Reports:_____

Quality Assurance Reports:_____

Supervisors' Safety Meeting Reports:_____

Toolbox Safety Meeting Reports:_____

Inspection Checklists:_____

Material Safety Data Sheets:_____

Construction Site Survey Findings:_____

Other Comments/Findings:_____

Evaluator:_____ Date:_____

ANNEX D
SAFETY AND OCCUPATIONAL HEALTH
MANAGEMENT EVALUATION
OPERATING PROJECT

Project Name:_____

Personnel Met: Project Manager:_____

Project Safety Officer:_____

Park Manager:_____

Safety & Occupational Health (S&OH) Program Document:_____

S&OH Policy Statements:_____

S&OH in Shop:_____

S&OH Meetings:_____

Pesticide Storage:_____

Fire Extinguishers Inspected:_____

OSHA Hazard Communication Standard:_____

Program Document:_____

Training:_____

Hazardous Materials Inventory:_____

Material Safety Data Sheets:_____

Labeling System:_____

Hazard Analyses of Operations:_____

Medical Surveillance Program:_____

Public Safety in Visitor Center:_____

Public Use Areas:_____

Other Comments/Findings:_____

Evaluator:_____ Date:_____

APPENDIX F
DIVISION COMMANDER'S
SAFETY AND OCCUPATIONAL HEALTH AWARD PROGRAM

1. Purpose. This appendix establishes the Division Commander's Safety and Occupational Health Award Program which recognizes exemplary achievement in district safety and occupational health programs.

2. Applicability. This appendix applies to the districts of the Missouri River Division.

3. References.

- a. AR 385-10, The Army Safety Program, with USACE Supplement 1.
- b. ER 385-1-85, Safety Management Evaluation.
- c. ER 385-1-88, Operating Procedures.

4. Award.

a. Each fiscal year, the districts will be considered for the Division Commander's Safety and Occupational Health Award. Award(s) will be presented to the district(s) with exemplary achievement in its/their safety and occupational health program(s). Criteria will include the following:

- (1) Safety Information Management System (SIMS) statistics.
- (2) Command inspection findings.
- (3) Safety and occupational health program management evaluations.

(4) District submissions of accomplishments to consider. Each submission shall not exceed ten pages, including enclosures.

- b. Award will be a Division Commander's plaque.
- c. Publicity will be provided by CEMRD-PA regarding the award(s).

APPENDIX G
SAFETY AND OCCUPATIONAL HEALTH AWARD PROGRAM
FOR
CONSTRUCTION CONTRACTORS

1. Purpose. This appendix establishes a program for solicitation of district nominations of construction contractors to be recognized by the Chief of Engineers for significant safety and/or occupational health accomplishment(s). These nominations will be forwarded through the Missouri River Division Safety and Occupational Health Office (CEMRD-SO) to HQUSACE.

2. Applicability. This appendix applies to the districts of the Missouri River Division.

3. References.

- a. AR 385-10, The Army Safety Program, with USACE Supplement 1.
- b. ER 385-1-85, Safety Management Evaluation.
- c. ER 385-1-88, Operating Procedures.
- d. ER 385-1-94, Contractor Award for Safe Performance.

4. Nominations. Each fiscal year, CEMRD-SO will solicit nominations from the district safety and occupational health offices. After review, CEMRD-SO will submit the acceptable nominations to HQUSACE. At the district and division levels, the nominations will be coordinated with the construction divisions.

5. Criteria. The districts will submit the following information:

- a. Name of Contractor.
- b. Contract Number.
- c. Title of Contract.
- d. Contract Cost.
- e. Contract Duration.
- f. Percent Complete.
- g. Anticipated Completion Date.
- h. Description of Work.

MRD-R 385-1-1

APP G

31 Jul 91

- i. Extreme or Unique Hazards.
- j. Other Considerations.
- k. Employee-hours of Exposure.
- l. Accident Experience.

APPENDIX H
QUALIFICATIONS AND SKILLS
OF
MOTOR VEHICLE AND EQUIPMENT OPERATORS

1. Purpose. This appendix prescribes policy, responsibilities, and procedures for training, testing, and licensing of operators of motor vehicles and construction equipment which is owned, leased, or operated by the Corps of Engineers.

2. Applicability. This appendix is applicable to the Missouri River Division Office and the districts of the Missouri River Division.

3. References.

a. AR 385-55, Prevention of Motor Vehicle Accidents, with USACE Supplement 1.

b. AR 600-55, Motor Vehicle Driver - Selection, Testing and Licensing, with USACE Supplement 1.

c. ER 1125-2-304, Inspection, Maintenance, Operation and Repair.

4. Optional Form 346 (OF 346), U.S. Government Motor Vehicle Operator's Identification Card.

a. Applications for an OF 346 will be in accordance with the USACE Supplement to AR 600-55.

b. An OF 346 is valid for four years unless revoked for cause.

5. Responsibilities.

a. District Operations Division will arrange or provide for training, testing, licensing, and maintenance of records within its district.

b. District Safety and Occupational Health Office will assist Operations in the coordination of the licensing program within its district.

c. Supervisors will determine the need for subordinate employees to obtain an OF 346 and initiate the required action in accordance with this regulation. Supervisors may revoke an operator's OF 346 based on the recommendation of safety or medical personnel.

d. Operators will:

(1) Operate vehicles or equipment in a safe and prudent manner.

MRD-R 385-1-1
APP H
31 Jul 91

(2) Report unsafe operating conditions of vehicles or equipment.

(3) Report all accidents to his or her supervisor. The supervisor will, in turn, report the accidents to the appropriate Safety and Occupational Health Office.

(4) Comply with all municipal, state, and military motor vehicle or equipment regulations.

(5) Ensure that vehicles or equipment and their contents are properly secured when left unattended.

(6) Ensure that the vehicle or equipment is properly serviced during the course of operation.

(7) Observe and comply with all posted speed limits on and off post.

(8) Ensure that all vehicle occupants use the installed restraint systems when the vehicle is in motion.

6. Motor Vehicles.

a. Motor Vehicles Under 10,000 Pounds. All personnel that are required to operate a Government-owned or -leased motor vehicle under 10,000 pounds gross vehicle weight (G.V.W.) will be required to have in their possession a valid state motor vehicle operator's license.

b. Motor Vehicle 10,000 Pounds and Over. All personnel that are required to operate a Government-owned or -leased motor vehicle of 10,000 pounds and over G.V.W. will be required to have in their possession a valid state motor vehicle operator's license and an OF 346 issued in accordance with AR 600-55.

7. Construction Equipment.

a. Officials authorized to certify equipment operators will ensure that all operators of construction equipment have demonstrated their ability to safely operate the equipment prior to certification. The certification should include a statement by the supervisor that the employee has a working knowledge of the capacities, limitations, and safety features of the equipment.

b. DA Form 348, Equipment Operator's Qualification Record, will be maintained as a permanent record of each individual's qualifications and performance.

MRD-R 385-1-1
APP H
31 Jul 91

8. Floating Plant. Each District will establish a licensing program in accordance with ER 1125-2-304, Inspection, Maintenance, Operation and Repair.

9. Physical Qualifications. Operators shall meet the applicable Office of Personnel Management physical qualifications and any special occupational health requirements.